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APPEAL BRIEF

Dear Sir:

Applicant submits the following Appeal Brief pursuant to 37 C.F.R. § 41.37 for consideration by the Board of Patent Appeals and Interferences. Please charge any additional fees or credit any overpayment to our deposit Account No. 02-2666.

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I. REAL PARTY IN INTEREST

The real party in interest is the assignee, Ascent Media Group, LLC.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences known to the appellants, the appellants' legal representative, or assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-29 of the present application are pending. The Applicant hereby appeals the rejections of claims 1-29.

IV. STATUS OF AMENDMENTS

On December 29, 2008, Applicant filed a response to an Office Action dated October 20, 2008. The Examiner issued a Final Office Action on April 1, 2009. On July 1, 2009, Applicant filed a Notice of Appeal. No amendments have been filed subsequent to the final rejection. On August 26, 2009, Applicant filed an Appeal Brief appealing the rejections of claims 1-29.

In response to the Appeal Brief filed on August 26, 2009, the Examiner reopened prosecution, issuing a non-final Office Action dated December 7, 2009. On May 6, 2010, Applicant filed a Notice of Appeal to initiate a new appeal. Applicant hereby appeals the rejection of claims 1-29.

V. SUMMARY OF CLAIMED SUBJECT MATTER

1. Independent claims 1, 13, and 22:

Independent claim 1 recites, "A method comprising: assigning a unique process identification number (PID) to a frequency band (Paragraph [0010], lines 4-6; Paragraph [0044], lines 10-14) used by each of a plurality of multimedia content providers (Paragraph [0044], lines 14-17); simultaneously receiving a plurality of data segments from the

plurality of multimedia content providers (Paragraph [0010], lines 6-8); Paragraph [0044], lines 32-38), wherein the data segments are tracked using the PID assigned to the frequency band used by each multimedia content provider (Paragraph [0010], lines 8-10); reconstructing a multimedia asset package transmitted by the multimedia content provider by compiling the plurality of data segments that constitute the multimedia asset package (Paragraph [0010], lines 10-13); and providing the multimedia asset package to a video-on-demand server (Figure 2, VOD server 250) that transmits at least a portion of the multimedia asset package to an end user (Paragraph [0010], lines 13-16).”

Independent claim 13 recites, “A method comprising: assigning a unique process identification number (PID) to each of a plurality of frequency bands (Paragraph [0010], lines 4-6; Paragraph [0044], lines 10-14) used by a plurality of multimedia content providers (Paragraph [0044], lines 14-17); receiving a plurality of multimedia data segments from the plurality of multimedia content providers, wherein the multimedia data segments are received simultaneously (Paragraph [0010], lines 6-8); Paragraph [0044], lines 32-38), the multimedia data segments are tracked using the PIDs (Paragraph [0010], lines 8-10), and the plurality of multimedia data segments form a complete multimedia asset package; forming the complete multimedia asset package using the plurality of multimedia data segments (Paragraph [0011], lines 8-11); validating the complete multimedia asset to confirm successful receipt of the complete multimedia asset (Paragraph [0011], lines 11-13); and providing each complete multimedia asset package to a video-on-demand server (Figure 2, VOD server 250) that transmits multimedia assets to end users (Paragraph [0011], lines 13-15).

Independent claim 22 recites, “A multimedia catcher receiver (Paragraph [0012], lines 1-2; Paragraph [0038], lines 4-6; Figure 1, catcher 200), comprising: a multimedia network interface unit to simultaneously receive a plurality of multimedia data segments sent from a plurality of multimedia content providers (Paragraph [0012], lines 2-6) and to provide the multimedia data segments (Paragraph [0012], lines 6-7); a receive unit coupled to the multimedia network interface unit (Paragraph [0012], lines 7-9) to reconstruct a complete multimedia asset package from the plurality of multimedia data segments provided by the multimedia network interface unit (Paragraph [0012], lines 9-12), and to validate the complete multimedia asset package (Paragraph [0012], lines 12-14); and a

content management system to receive multimedia asset packages from the receive unit (Paragraph [0012], lines 14-16; Figure 2, Catcher CMS 208), manage the received multimedia asset packages (Paragraph [0012], lines 16-17), and provide the multimedia asset packages to a multimedia server (Paragraph [0012], lines 17-18); wherein each frequency band used by a multimedia content provider is assigned a unique process identification number (PID) (Paragraph [0012], lines 19-21), and the multimedia asset packages are tracked using at least the PID assigned to the frequency band used by the multimedia content provider (Paragraph [0012], lines 21-23).

2. Dependent claims 2-12, 14-21, and 23-29:

Claims 2 and 14 recite, in essence, “wherein simultaneously receiving the plurality of data segments comprises receiving at least three data segments simultaneously from different multimedia content providers (Paragraph [0044], lines 20-38).”

Claim 3 and 15 recite, in essence, “wherein simultaneously receiving the plurality of data segments comprises simultaneously receiving the plurality of data segments on different frequency bands (Paragraph [0044], lines 17-38).”

Claim 4, 16, and 23 recite, in essence, “wherein simultaneously receiving the plurality of data segments comprises receiving data segments from each multimedia content provider using a separate data receiver card for each frequency band used by each content provider (Paragraph [0042], lines -19; Paragraph [0044], lines 5-8).”

Claims 5 and 17 recite, in essence, “providing a backchannel connection to each multimedia content provider to enable the multimedia content provider to track the receipt of data segments transmitted by the multimedia content provider (Paragraph [0041], lines 6-11).”

Claims 6 and 26 recite, in essence, “providing acknowledgements of receipt of a multimedia asset package to the multimedia content provider using the backchannel connection (Paragraph [0041], lines 6-11).”

Claims 7, 18, and 27 recite, in essence, “wherein the backchannel connection is a network connection chosen from the group consisting of an internet connection, a public switched telephone network (PSTN) connection, and a virtual private network (VPN) connection (Paragraph [0041], lines 11-15).”

Claim 8 recites, in essence “validating the multimedia asset package to confirm successful receipt of the multimedia asset package (Paragraph [0045], lines 16-23)”

Claims 9 and 19 recite, in essence, “receiving metadata that accompanies the data segments of the multimedia asset package; and analyzing the metadata to determine whether the complete multimedia asset package is received (Paragraph [0045], lines 16-23).”

Claims 10 and 20 recite, in essence, “wherein validating the multimedia asset package occurs before providing the multimedia asset package to the video-on-demand server (Paragraph [0049], lines 1-3).”

Claims 11 and 21 recite, in essence, “receiving a request for a movie file from the multimedia asset package from the end user; comparing metadata associated with the multimedia asset package with validation logic and business rules restricting use of the movie file; and providing the movie file to the end user if the metadata complies with the validation logic and business rules (Paragraph [0066], lines 1-17).”

Claim 12 recites, in essence, “enabling a user to determine an order in which multimedia asset packages, including the multimedia asset package, are provided to the video-on-demand server (Paragraph [0049], lines 13-18).”

Claim 24 recites, in essence, “wherein the multimedia network interface unit comprises a plurality of data receiver cards configured to receive satellite transmissions and a network interface card configured to receive terrestrial transmissions (Paragraph [0044], lines 1-5).”

Claim 25 recites, in essence, “wherein the network interface card comprises an ethernet card (Paragraph [0041], lines 15-18).”

Claim 29 recites, in essence, “wherein the asset receive unit comprises at least one data input unit taken from the group consisting of a digital versatile disk (DVD)-based drive and a file transfer protocol (FTP) server interface Paragraph [0040], lines 4-9).”

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

- A. Claims 1-21 stand rejected under 35 U.S.C. §101 as not falling within one of the four categories of invention.
- B. Claims 1-23 and 26-27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,107,606 issued to Lee ("Lee") in view of U.S. Patent No. 6,305,019 issued to Dyer et al ("Dyer").
- C. Claims 24-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lee and Dyer as applied to claim 22 above, and further in view of U.S. Patent No. 7,065,213 issued to Pinder ("Pinder").
- D. Claim 28-29 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lee and Dyer as applied to claim 22 above, and further in view of U.S. Patent Application No. 2004/0226042 issued to Ellis ("Ellis").

VII. ARGUMENTS

In the Office Action, the Examiner rejected claims 1-21 under 35 U.S.C. §101 and claims 1-29 under 35 U.S.C. §103(a). Applicant respectfully traverses the rejections and submits that the Examiner has not met the burden of establishing a *prima facie* case of unpatentability and obviousness.

To establishing a *prima facie* case of unpatentability under 35 U.S.C. §101, USPTO personnel must identify and explain in the record the reasons why a claim is for an abstract idea with no practical application. Applicant respectfully submits that the Examiner has not proved that the claim is for an abstract idea with no practical application.

To establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP* §2143, *p. 2100-126 to 2100-130 (8th Ed., Rev. 5, August 2006)*. Applicant respectfully submits that there is no suggestion or motivation to combine their teachings, and thus no *prima facie* case of obviousness has been established.

Furthermore, the Supreme Court in *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966), stated: “Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.” *MPEP* 2141. In *KSR International Co. vs. Teleflex, Inc.*, 127 S.Ct. 1727 (2007) (Kennedy, J.), the Court explained that “[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” The Court further required that an explicit analysis for this reason must be made. “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some

articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR 127 S.Ct.* at 1741, quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). In the instant case, Applicant respectfully submits that there are significant differences between the cited references and the claimed invention and there is no apparent reason to combine the known elements in the manner as claimed, and thus no *prima facie* case of obviousness has been established.

A. Claims 1-21 Are Directed to Statutory Subject Matter Under 35 U.S.C. §101.

The Examiner contends that claims 1-21 do not fall within one of the four categories of invention. Specifically, the Examiner contends that “[w]hile the claims recite a series of steps or acts to be performed, a statutory ‘process’ under 35 U.S.C. 101 must (1) be tied to another statutory category (such as an article or material) to a different state or thing,” (Office Action, pages 2-3, paragraph 2). The Examiner states that “[t]he instant claims neither transform underlying subject matter nor positively tie to another statutory that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.” (Office Action, page 2, paragraph 2).

Applicant respectfully disagrees for the following reasons.

a) First, claims 1-21 satisfy the requirements of the *Bilski* test.

The Examiner merely states that claims 1-21 neither transform underlying subject matter nor positively tie to another statutory category without providing an analysis or arguments why these claims are non-statutory. Applicant submits that the claims are statutory and satisfy the requirements in the *Bilski* test.

The independent claim 1 recites: “A method comprising: assigning a unique process identification number (PID) to a frequency band used by each of a plurality of multimedia content providers; simultaneously receiving a plurality of data segments from the plurality of multimedia content providers, wherein the data segments are tracked using the PID assigned to the frequency band used by each multimedia content provider; reconstructing a multimedia asset package transmitted by the multimedia content provider by compiling the plurality of data segments that constitute the multimedia asset package; and providing the multimedia asset package to a video-on-demand server that transmits at least a portion of the multimedia asset package to an end user.”

The independent claim 13 recites: “A method comprising: assigning a unique process identification number (PID) to each of a plurality of frequency bands used by a plurality of multimedia content providers; receiving a plurality of multimedia data segments from the plurality of multimedia content providers, wherein the multimedia data segments are received simultaneously, the multimedia data segments are tracked using the PIDs, and the plurality of multimedia data segments form a complete multimedia asset package; forming the complete multimedia asset package using the plurality of multimedia data segments; validating the complete multimedia asset to confirm successful receipt of the complete multimedia asset; and providing each complete multimedia asset package to a video-on-demand server that transmits multimedia assets to end users.”

A claimed process is statutory if it is limited to a practical application of the abstract idea or mathematical algorithm in the technological arts. See *Alappat*, 33 F.3d at 1543, 31 USPQ2d at 1556-57 (quoting *Diamond v. Diehr*, 450 U.S. at 192, 209 USPQ at 10). See also *Alappat* 33 F.3d at 1569, 31 USPQ2d at 1578-79 (Newman, J., concurring) (“unpatentability of the principle does not defeat patentability of its practical applications”) (citing *O'Reilly v. Morse*, 56 U.S. (15 How.) at 114-19).

According to the *Interim Bilski Guidance* provided by Robert Bahr, Acting Associate Commissioner for Patent Examination Policy, dated July 27, 2010, the machine-or-transformation test remains an investigative tool and is a useful starting point for determining whether a claimed invention is a patent-eligible process under 35 U.S.C. 101.

In its *en banc* majority opinion in *In re Bilski*, the U.S Court of Appeals for the Federal Circuit concludes that the “useful, concrete and tangible result” inquiry is inadequate and reaffirms that the machine-or-transformation test outlined by the Supreme Court is the proper test to apply. *In re Bilski*, 545 F.3d 943, 88 U.S.P.Q.2d 1385 (2008). Under the principles discussed in the *Bilski* decision, Applicant believes that claims 1-21 satisfy the machine-or-transformation test and are therefore statutory under 35 U.S.C. §101.

At the onset, the *Bilski* court emphatically states that “the proper inquiry under §101 is not whether the process claims recites sufficient ‘physical steps,’ but rather whether the claim meets the machine-or-transformation test.” Accordingly, “a claim that purportedly lacks any ‘physical steps’ but is still tied to a machine or achieves an eligible transformation passes muster under §101.” *In re Bilski*, 545 F.3d 943, 88 U.S.P.Q.2d 1385

(2008). The *Bilski* court focuses the analysis under the principle articulated by the Supreme Court that whether the claim recites a fundamental principle and if so, whether it would pre-empt substantially all uses of that fundamental principle if allowed. *Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972).

The *Bilski* court articulates the machine-or-transformation test as a two-branched inquiry. The *Bilski* court states that an applicant may show that a process claim satisfies §101 either by showing that his claim is tied to a particular machine, or by showing that his claim transforms an article, citing *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972). Applicant submits that claims 1-21 satisfy both tests as analyzed below.

1. Tying to a particular machine or apparatus:

In *Bilski*, the issues specific to the machine implementation part of the test are not before the court for review. The *Bilski* court therefore leaves to future cases the elaboration of the precise contours of machine implementation. However, there are a number of cases that have been decided by the court that provide clear guidelines in determining whether a claim is tied to a particular machine.

In *In re Abele*, when interpreting an earlier case, *In re Walter*, the court states that “Walter should be read as requiring no more than that the algorithm be ‘applied in any manner to physical elements or process steps,’ provided that its application is circumscribed by more than a field of use limitation or non-essential post-solution activity. *In re Abele and Marshall*, 684 F.2d (CCPA 1982), 214 USPQ 682, 686 (CCPA 1982). The *Abele* court further states that if the claimed invention is an application of the algorithm, §101 will not bar the grant of a patent. *In re Abele*, 684 F.2d (CCPA 1982), 214 USPQ at 687 (CCPA 1982).

Accordingly, “tying to a particular machine” does not require that the process has to be performed by a machine. Rather, “tying to a particular machine” merely requires that the process is applied to a particular machine or apparatus, or a physical object.

An analysis of claims 1 and 13 shows that the process is applied a particular apparatus, satisfying the “tying to a particular apparatus” inquiry.

Claim 1:

The first element of the claim recites, among other things, “assigning a unique process identification number (PID) to a frequency band used by each of a plurality of

multimedia content providers.” A unique process identification number and a frequency band represent physical entities and are concrete.

The second element of the claim recites “simultaneously receiving a plurality of data segments from the plurality of multimedia content providers, wherein the data segments are tracked using the PID assigned to the frequency band used by each multimedia content provider.” The data segments are segments of data in the multimedia asset package. They may be represented by digital data including binary information and therefore are physical entities.

The third element of the claim recites “reconstructing a multimedia asset package transmitted by the multimedia content provider by compiling the plurality of data segments that constitute the multimedia asset package.” A multimedia asset package is a package of digital content such as video or audio content. It is therefore a physical entity.

The fourth element of the claim recites “providing the multimedia asset package to a video-on-demand server that transmits at least a portion of the multimedia asset package to an end user.” A video-on-demand server is a machine or apparatus. Accordingly, the claim is tied to a particular machine or apparatus.

Claim 13:

Claim 13 contains elements that are similar to claim 1 and therefore the same analysis applies. In particular, the last element of the claim recites “providing each complete multimedia asset package to a video-on-demand server that transmits multimedia assets to end users.” As above, a video-on-demand server is a machine or apparatus. Accordingly, the claim is tied to a particular machine or apparatus.

In summary, since all the elements of the claim apply a process operation to physical entities involving a server, which is a particular apparatus, they are all tied to a particular machine or apparatus.

2. Transformation of an article:

In addition to tying to a particular machine or apparatus, the rejected claims also transform an article.

The rejected claims: (1) transform (e.g., reconstruct, form) a plurality of data segments received from multimedia content providers into a multimedia asset package using a unique process identification number assigned to a frequency band; (2) transform (e.g., transmit) at least a portion of the multimedia asset package from one location to a

another location (end user); and (3) transform (e.g., validate) a multimedia asset package into a validated multimedia asset package upon successful receipt of the complete multimedia asset.

The *Bilski* court is very clear about what it means by “article” in transforming an article. The *Bilski* court states that “[s]o long as the claimed process is limited to a practical application of a fundamental principle to transform specific data, and the claim is limited to a visual depiction that represents specific physical objects or substances, there is no danger that the scope of the claim would wholly pre-empt all uses of the principle.” *In re Bilski*, 545 F.3d 943, 88 U.S.P.Q.2d 1385 (2008).

In discussing *Abele*, the *Bilski* court states that “the claim was not required to involve any transformation of the underlying physical object that the data represented.” *In re Bilski*, 545 F.3d 943, 88 U.S.P.Q.2d 1385 (2008). In other words, as long as a data represents a physical object, transformation of this data is sufficient to satisfy the transformation test. In *Abele*, the data represents the X-ray attenuation data produced in a two-dimensional field by a computed tomography scanner. The *Bilski* court states that this data clearly represents physical and tangible objects, namely the structure of bones, organs, and other body tissues. Here, the process operations operate on data representing physical objects including data segments, identification number, frequency band, and multimedia asset package.

In summary, the rejected claims satisfy not only one, but both the machine and transformation tests as articulated by the Supreme Court and the Court of Appeals for the Federal Circuit. Furthermore, the scope of the claim in the principles of media distribution is such that there is no danger that it would wholly pre-empt all uses of the principle.

b) Second, as required by the MPEP, the burden is on the USPTO to set forth a *prima facie* case of unpatentability. MPEP 2106 IV.B.

USPTO personnel should review the totality of the evidence (e.g., the specification, claims, relevant prior art) before reaching a conclusion with regard to whether the claimed invention sets forth patent eligible subject matter. USPTO personnel must weigh the determinations made above to reach a conclusion as to whether it is more likely than not that the claimed invention as a whole either falls outside of one of the enumerated statutory classes or within one of the exceptions to statutory subject matter. "The examiner bears the initial burden of presenting a *prima facie* case of unpatentability." *In re Oetiker*, 977 F.2d

1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If the record as a whole suggests that it is more likely than not that the claimed invention would be considered a practical application of an abstract idea, natural phenomenon, or law of nature, then USPTO personnel should not reject the claim. MPEP 2106 IV.D. After USPTO personnel identify and explain in the record the reasons why a claim is for an abstract idea with no practical application, then the burden shifts to the applicant to either amend the claim or make a showing of why the claim is eligible for patent protection. See, e.g., *In re Brana*, 51 F.3d 1560, 1566, 34 USPQ2d 1436, 1441 (Fed. Cir. 1995) MPEP 2106 IV.D. Here, the Examiner has not met the burden of establishing a prima facie case of unpatentability because the Examiner has not proved that the claim is for an abstract idea with no practical application.

As analyzed above, the rejected claims satisfy the requirements of patentability. In addition, the specification provides ample support that the operations recited in the rejected claims are within the statutory subject matter.

Accordingly, Applicant submits that claims 1-21 are statutory under 35 U.S.C. §101.

B. Claims 1-23 and 26-27 Are Not Obvious Under 35 U.S.C. §103(a) Over Lee In View Of Dyer.

Lee discloses a system and method for highly scalable video on demand. A VoD system utilizes a number of channels for pre-scheduled transmissions ("static channels"), as well as a number of channels for more dynamically initiated and later-scheduled transmissions ("dynamic channels") (Lee, col. 4, lines 37-42). The VoD system 100a comprises a number of service nodes 120a connected via a multicast-ready network to clients 110a (Lee, col. 7, lines 13-15). Each service node 120a preferably operates substantially independently from the other service nodes 120a and preferably has, or has access to, its own storage (e.g., disk storage), memory, CPU, and network interface (Lee, col. 7, lines 21-25; Fig. 5). n dynamically admitted users who form a dynamic admission group for a video share a dynamically initiated multicast that is merged into a statically scheduled multicast (Lee, col. 6, lines 42-47; Fig. 4C).

Dyer discloses a system for interactively distributing information services having a remote video session manager. A digital video modulator (DVM) module configuration

contains sixteen neighborhoods of subscriber terminals, each DVM services two neighborhoods using each of the DVM output ports. However, if one neighborhood is using the movie-on-demand service more than another, DVMs are removed from servicing one neighborhood and added to service the neighborhood with the higher demand (Dyer, col. 9, lines 48-54).

Lee and Dyer, taken alone or in any combination, do not disclose or render obvious, at least one of:

(1a) assigning a unique process identification number (PID) to a frequency band used by each of a plurality of multimedia content providers; (2a) simultaneously receiving a plurality of data segments from the plurality of multimedia content providers, wherein the data segments are tracked using the PID assigned to the frequency band used by each multimedia content provider; (3a) reconstructing a multimedia asset package transmitted by the multimedia content provider by compiling the plurality of data segments that constitute the multimedia asset package; and (4a) providing the multimedia asset package to a video-on-demand server that transmits at least a portion of the multimedia asset package to an end user; as recited in claim 1; or

(1b) assigning a unique process identification number (PID) to each of a plurality of frequency bands used by a plurality of multimedia content providers; (2b) receiving a plurality of multimedia data segments from the plurality of multimedia content providers, wherein the multimedia data segments are received simultaneously, the multimedia data segments are tracked using the PIDs, and the plurality of multimedia data segments form a complete multimedia asset package; (3b) forming the complete multimedia asset package using the plurality of multimedia data segments; (4b) validating the complete multimedia asset to confirm successful receipt of the complete multimedia asset; and (5b) providing each complete multimedia asset package to a video-on-demand server that transmits multimedia assets to end users; as recited in claim 13; or

(1c) a multimedia network interface unit to simultaneously receive a plurality of multimedia data segments sent from a plurality of multimedia content providers and to provide the multimedia data segments; (2c) a receive unit coupled to the multimedia network interface unit to reconstruct a complete multimedia asset package from the plurality of multimedia data segments provided by the multimedia network interface unit, and to validate the complete multimedia asset package; and (3c) a content management

system to receive multimedia asset packages from the receive unit, manage the received multimedia asset packages, and provide the multimedia asset packages to a multimedia server; wherein each frequency band used by a multimedia content provider is assigned a unique process identification number (PID), and the multimedia asset packages are tracked using at least the PID assigned to the frequency band used by the multimedia content provider; as recited in claim 22.

First, Lee merely discloses static channels as channels for pre-scheduled transmissions and dynamic channels as channels for more dynamically initiated and later-scheduled transmissions (Lee, col. 4, lines 37-42), not assigning a unique process identification number (PID) to a frequency band used by each of a plurality of multimedia content providers. Static or dynamic channels have no unique process identification number. They merely refer to the channels that are used for transmissions according to the schedule, either pre-scheduled or later-scheduled. Since the schedule varies according to demand, it cannot be fixed. Accordingly, the channels used for transmission according to the schedule, either static or dynamic, cannot be fixed. Since they cannot be fixed, they cannot be unique. Furthermore, the channels are used for distribution to end users. Therefore, they are not used by the multimedia content providers.

Second, Lee merely discloses a number of service nodes 120a connected via a multicast-ready network to clients 110a (Lee, col. 7, lines 13-15), not simultaneously receiving a plurality of data segments from the plurality of multimedia content providers, wherein the data segments are tracked using the PID assigned to the frequency band used by each multimedia content provider. The VOD system 100a as shown in Figure 5 shows a VOD system having a number of service nodes. The multicast-ready network is used to transmit the video to the regional network 520 which distribute the videos to the clients (Lee, Fig. 5; lines 15-18). Accordingly, it does not receive the data segments from the multimedia content providers. Furthermore, the system 100a does not track the data segments using the PID assigned to the frequency band.

Third, Lee merely discloses an admission logic that processes n dynamically admitted users who share a dynamically initiated multicast that is merged into a statically scheduled multicast (Lee, col. 6, lines 42-47; Fig. 4C), not reconstructing a multimedia asset package transmitted by the multimedia content provider by compiling the plurality of data segments that constitute the multimedia asset package. Figure 4C merely illustrates a

timing chart for n dynamically admitted user. The n users who arrive late and miss the front portions of the video cache the most recent static transmission of the video (Lee, col. 6, lines 47-50). Admitting users or transmitting the video does not reconstruct a multimedia asset package. The video is already being transmitted during the scheduled session. It does not need to be reconstructed. Furthermore, caching a missed segment of the video is not the same as compiling the plurality of data segments that constitute the multimedia asset package.

Fourth, Dyer merely discloses removing DVMs from servicing one neighborhood and adding to service the neighborhood with the higher demand (Dyer, col. 9, lines 48-54), not tracking the data segments using the PID assigned to the frequency band used by each multimedia content provider. The session control manager (SCM) merely keeps track of a number of pools of the DVMs to dynamically move the DVMs from one pool to another. A DVM is a digital video modulator. It is not a data segment of a multimedia asset package. Furthermore, the SCM does not use the PID assigned to the frequency band used by each multimedia content provider.

Regarding claims 13 and 22, the above arguments apply.

The Examiner contends that Lee discloses “validating the complete multimedia asset to confirm successful receipt of the complete multimedia asset,” citing col. 8, lines 46-55 (Office Action, page 5, lines 7-8; page 6. Lines 6-7). Applicant respectfully disagrees and submits that the cited excerpt does not support the Examiner’s argument. For ease of reference, the cited excerpt is copied below.

“The AC 130a records locally the value of the needed duration (e.g., duration D1 of FIG. 4C) as the maximum needed duration, mentioned above. The maximum needed duration, of the AC 130a for the video, is the greatest duration of the front portion of the video that is needed by any client of the AC 130a that is participating in the present dynamic admission cycle. After sending (620) the START request (and preferably receiving confirmation of its receipt), the AC 130a enters a second state 622.” (Lee, col. 8, lines 46-55. *Emphasis added.*)

As seen from the above, Lee merely discloses the admission controller (AC) sends the START request and receives confirmation of the receipt of the START request. The AC 130a merely accepts arriving clients (Lee, col. 7, lines 46-48). It does not receive the multimedia asset and therefore it cannot validate the complete multimedia asset.

Furthermore, confirming receipt of the START request is not the same as confirming receipt of the complete multimedia asset. A START request is merely a request. It is not a complete multimedia asset.

C. Claims 24-25 Are Not Obvious Over Lee In View Of Dyer And Further In View Of Pinder.

Lee and Dyer are discussed above.

Pinder discloses a subscriber network receiving digital packets and transmitting digital packets below a predetermined maximum bit rate. A digital broadband distribution system (DBDS) 100 includes a headend 102, a plurality of hubs 104, multiple nodes 106, a plurality of subscriber locations 108, and a plurality of digital home communication terminals (DHCTs) 110 (Pinder, col. 4, lines 16-20). The headend 102 receives content from a variety of input sources 202 and 210 where the input signals may be transmitted from sources to the headend 102 via a variety of transmission paths, including satellites 204, and terrestrial broadcast transmitter and antenna, 206 and 208, respectively (Pinder, col. 5, lines 31-35).

Lee, Dyer, and Pinder, taken alone or in any combination, do not disclose or render obvious, at least one of: (1c) – (3c) as above, (4c) multimedia network interface unit comprises a plurality of data receiver cards configured to receive satellite transmissions and a network interface card configured to receive terrestrial transmissions; and (5c) the network interface card comprises an ethernet card; as recited in claims 24-25.

As discussed above, Lee and Dyer, taken alone or in any combination, do not disclose or render obvious (1c) – (3c) above. Accordingly, a combination of Lee and Dyer with any other references in rejecting claims 24-25, which depend on claim 22, is improper.

Furthermore, Pinder merely discloses the headend 102 receives content from a variety of input sources 202 and 210 where the input signals may be transmitted via a variety of transmission paths, including satellites 204, and terrestrial broadcast transmitter and antenna, 206 and 208, respectively (Pinder, col. 5, lines 31-35), not multimedia network interface unit comprises a plurality of data receiver cards configured to receive satellite transmissions and a network interface card configured to receive terrestrial transmissions. The headend 102 merely receives the content, but not a plurality of

multimedia data segments sent from a plurality of multimedia content providers where a complete multimedia asset package is reconstructed from the multimedia data segments. Furthermore, Pinder merely discloses input signals may be transmitted via a variety of transmission paths, including satellites 204, and terrestrial broadcast transmitter and antenna, 206 and 208, not a plurality of data receiver cards. There may be other ways to receive the input signals, and not necessarily by a plurality of data receiver cards.

D. Claim 28- 29 Are Not Obvious Over Lee In View Of Dyer And Further In View Of Ellis.

Lee and Dyer are discussed above.

Ellis discloses a program guide system with video-on-demand browsing. A video server 29 may be comprised of any suitable digital, analog, or mixed digital and analog storage and retrieval system 33 that can provide viewer television equipment 30 with a video signal of a requested program. Such systems may include (but are not limited to) video cassette recorder (VCR) systems, digital versatile disc systems (DVD), laser disc systems, optical disc systems, magnetic tape and disc systems, and magneto-optical systems (such as a read/write digital disc systems), etc. (Ellis, paragraph [0038], lines 4-13; Fig. 2)

Lee, Dyer, and Ellis, taken alone or in any combination, do not disclose or render obvious, at least one of: (1c) – (3c) as above, (6c) an asset receive unit coupled to the receive unit and to the content management system, and capable of processing multimedia asset packages from the receive unit and multimedia asset packages received from a local source, as recited in claim 28; and (7c) the asset receive unit comprises at least one data input unit taken from the group consisting of a digital versatile disk (DVD)-based drive and a file transfer protocol (FTP) server interface; as recited in claim 29.

As discussed above, Lee and Dyer, taken alone or in any combination, do not disclose or render obvious (1c) – (3c) above. Accordingly, a combination of Lee and Dyer with any other references in rejecting claims 24-25, which depend on claim 22, is improper.

Furthermore, Ellis merely discloses a video server 29 in a distribution facility 26 which may contain a database 31 of video-on-demand programs (Ellis, paragraph [0038], lines 1-4), not an asset receive unit capable of processing multimedia asset packages from

the receive unit and multimedia asset packages received from a local source. The video server 29 obtains the video-on-demand programs from a database 31, not from a receive unit that reconstructs a complete multimedia asset package from the plurality of multimedia data segments.

The Examiner failed to establish a prima facie case of obviousness and failed to show there is teaching, suggestion, or motivation to combine the references. When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to: (A) The claimed invention must be considered as a whole; (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) Reasonable expectation of success is the standard with which obviousness is determined. *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986). "When determining the patentability of a claimed invention which combined two known elements, 'the question is whether there is something in the prior art as a whole suggest the desirability, and thus the obviousness, of making the combination.'" *In re Beattie*, 974 F.2d 1309, 1312 (Fed. Cir. 1992), 24 USPQ2d 1040; *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1462, 221 USPQ (BNA) 481, 488 (Fed. Cir. 1984). To defeat patentability based on obviousness, the suggestion to make the new product having the claimed characteristics must come from the prior art, not from the hindsight knowledge of the invention. *Interconnect Planning Corp. v. Feil*, 744 F.2d 1132, 1143, 227 USPQ (BNA) 543, 551 (Fed. Cir. 1985). To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the Examiner to show a motivation to combine the references that create the case of obviousness. In other words, the Examiner must show reasons that a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the prior elements from the cited prior references for combination in the manner claimed. *In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1996), 47 USPQ 2d (BNA) 1453. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or implicitly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex*

parte Clapp, 227 USPQ 972, 973. (Bd.Pat.App.&Inter. 1985). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Furthermore, although a prior art device “may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so.” *In re Mills*, 916 F.2d at 682, 16 USPQ2d at 1432; *In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992), 23 USPQ2d 1780.

Moreover, the Examiner failed to establish the factual inquiries in the three-pronged test as required by the *Graham* factual inquiries. There are significant differences between the cited references and the claimed invention as discussed above. Furthermore, the Examiner has not made an explicit analysis on the apparent reason to combine the known elements in the fashion in the claimed invention. Accordingly, there is no apparent reason to combine the teachings of Lee, Dyer, Pinder and Ellis in any combination.

In the present invention, the cited references do not expressly or implicitly disclose any of the above elements. In addition, the Examiner failed to present a convincing line of reasoning as to why a combination of Lee, Dyer, Pinder and Ellis is an obvious application of multicast media distribution system using a catcher or an explicit analysis on the apparent reason to combine Lee, Dyer, Pinder and Ellis in the manner as claimed.

Therefore, Applicant believes that independent claims 1, 13, and 22 and their respective dependent claims are distinguishable over the cited prior art references.

VIII. CONCLUSION

Applicant respectfully requests that the Board enter a decision overturning the Examiner's rejection of all pending claims, and holding that the claims satisfy the requirements of 35 U.S.C. §103(a).

Respectfully submitted,

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IX. CLAIM APPENDIX

The claims of the present application which are involved in this appeal are as follows:

1. (previously presented) A method comprising:
assigning a unique process identification number (PID) to a frequency band used by each of a plurality of multimedia content providers;
simultaneously receiving a plurality of data segments from the plurality of multimedia content providers, wherein the data segments are tracked using the PID assigned to the frequency band used by each multimedia content provider;
reconstructing a multimedia asset package transmitted by the multimedia content provider by compiling the plurality of data segments that constitute the multimedia asset package; and
providing the multimedia asset package to a video-on-demand server that transmits at least a portion of the multimedia asset package to an end user.
2. (previously presented) The method of claim 1, wherein simultaneously receiving the plurality of data segments comprises receiving at least three data segments simultaneously from different multimedia content providers.
3. (previously presented) The method of claim 1, wherein simultaneously receiving the plurality of data segments comprises simultaneously receiving the plurality of data segments on different frequency bands.
4. (previously presented) The method of claim 1, wherein simultaneously receiving the plurality of data segments comprises receiving data segments from each multimedia content provider using a separate data receiver card for each frequency band used by each content provider.
5. (original) The method of claim 1, further comprising:
providing a backchannel connection to each multimedia content provider to enable

the multimedia content provider to track the receipt of data segments transmitted by the multimedia content provider.

6. (original) The method of claim 5, further comprising:
providing acknowledgements of receipt of a multimedia asset package to the multimedia content provider using the backchannel connection.

7. (original) The method of claim 5, wherein the backchannel connection is a network connection chosen from the group consisting of an internet connection, a public switched telephone network (PSTN) connection, and a virtual private network (VPN) connection.

8. (previously presented) The method of claim 1 wherein reconstructing the multimedia asset package comprises:
validating the multimedia asset package to confirm successful receipt of the multimedia asset package.

9. (previously presented) The method of claim 8, wherein validating the multimedia asset package comprises:
receiving metadata that accompanies the data segments of the multimedia asset package; and
analyzing the metadata to determine whether the complete multimedia asset package is received.

10. (original) The method of claim 8, wherein validating the multimedia asset package occurs before providing the multimedia asset package to the video-on-demand server.

11. (previously presented) The method of claim 1 further comprising:
receiving a request for a movie file from the multimedia asset package from the end user;
comparing metadata associated with the multimedia asset package with validation logic and business rules restricting use of the movie file; and

providing the movie file to the end user if the metadata complies with the validation logic and business rules.

12. (previously presented) The method of claim 1, further comprising: enabling a user to determine an order in which multimedia asset packages, including the multimedia asset package, are provided to the video-on-demand server.

13. (previously presented) A method comprising:
assigning a unique process identification number (PID) to each of a plurality of frequency bands used by a plurality of multimedia content providers;
receiving a plurality of multimedia data segments from the plurality of multimedia content providers, wherein the multimedia data segments are received simultaneously, the multimedia data segments are tracked using the PIDs, and the plurality of multimedia data segments form a complete multimedia asset package;
forming the complete multimedia asset package using the plurality of multimedia data segments;
validating the complete multimedia asset to confirm successful receipt of the complete multimedia asset; and
providing each complete multimedia asset package to a video-on-demand server that transmits multimedia assets to end users.

14. (previously presented) The method of claim 13, wherein receiving the plurality of multimedia data segments comprises simultaneously receiving at least three multimedia data segments simultaneously from three different multimedia content providers.

15. (previously presented) The method of claim 13, wherein receiving the plurality of multimedia data segments comprises simultaneously receiving the plurality of multimedia data segments from different multimedia content providers on different frequency bands, and the multimedia data segments for a complete multimedia asset package transmitted by a particular multimedia content provider are transmitted on a common frequency band.

16. (previously presented) The method of claim 13, wherein receiving the plurality of multimedia data segments comprises receiving the multimedia data segments from different multimedia content providers using a separate data receiver card for each different frequency band used by the content providers.

17. (original) The method of claim 13, further comprising:
providing a backchannel connection to each multimedia content provider to provide each multimedia content provider with acknowledgements of either successful or unsuccessful receipt of a complete multimedia asset package.

18. (original) The method of claim 17, wherein the backchannel connection is a network connection chosen from the group consisting of an internet connection, a public switched telephone network (PSTN) connection, and a virtual private network (VPN) connection.

19. (previously presented) The method of claim 13, wherein validating the complete multimedia asset package comprises:
receiving metadata that accompanies the multimedia data segments of the complete multimedia asset package; and
analyzing the metadata to determine whether the complete multimedia asset package has been received.

20. (original) The method of claim 13, wherein validating the complete multimedia asset package occurs before providing the complete multimedia asset package to the multimedia server.

21. (original) The method of claim 13, further comprising:
providing a portion of the complete multimedia asset package to a requesting end user by comparing metadata associated with the complete multimedia asset package with validation logic and business rules governing authorized users of the asset package, and transmitting the portion of the complete multimedia asset package to the end user if the metadata complies with the validation logic and business rules.

22. (previously presented) A multimedia catcher receiver, comprising:
a multimedia network interface unit to simultaneously receive a plurality of multimedia data segments sent from a plurality of multimedia content providers and to provide the multimedia data segments;

a receive unit coupled to the multimedia network interface unit to reconstruct a complete multimedia asset package from the plurality of multimedia data segments provided by the multimedia network interface unit, and to validate the complete multimedia asset package; and

a content management system to receive multimedia asset packages from the receive unit, manage the received multimedia asset packages, and provide the multimedia asset packages to a multimedia server;

wherein each frequency band used by a multimedia content provider is assigned a unique process identification number (PID), and the multimedia asset packages are tracked using at least the PID assigned to the frequency band used by the multimedia content provider.

23. (original) The multimedia catcher receiver of claim 22, wherein the multimedia network interface unit comprises a plurality of data receiver cards configured to receive satellite transmissions.

24. (original) The multimedia catcher receiver of claim 22, wherein the multimedia network interface unit comprises a plurality of data receiver cards configured to receive satellite transmissions and a network interface card configured to receive terrestrial transmissions.

25. (original) The multimedia catcher receiver of claim 24, wherein the network interface card comprises an ethernet card.

26. (original) The multimedia catcher receiver of claim 22, wherein the receive unit comprises a backchannel network to provide a communication pathway between the multimedia catcher receiver and the plurality of multimedia content providers to provide acknowledgements of successful receipt of multimedia asset packages to the multimedia content providers.

27. (original) The multimedia catcher receiver of claim 26, wherein the backchannel network is a network connection chosen from the group consisting of an internet connection, a public switched telephone network (PSTN) connection, and a virtual private network (VPN) connection.

28. (original) The multimedia catcher receiver of claim 22, comprising an asset receive unit coupled to the receive unit and to the content management system, and capable of processing multimedia asset packages from the receive unit and multimedia asset packages received from a local source.

29. (previously presented) The multimedia catcher receiver of claim 28, wherein the asset receive unit comprises at least one data input unit taken from the group consisting of a digital versatile disk (DVD)-based drive and a file transfer protocol (FTP) server interface.

XI. EVIDENCE APPENDIX

None.

XII. RELATED PROCEEDINGS APPENDIX

None.